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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.

10/551,728

Applicant (s)

Saha et al.

Filed

October 3, 2005

TC/A.U.

1755

Examiner

unknown

Title

IMPROVED POROUS MULLITE BODIES AND METHODS

OF FORMING THEM

Docket No.

61804A

Customer No.

00109

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SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Pursuant to Applicant's duty of disclosure under 37 CFR §1.56, the Examiner's attention is directed to the information identified in the attached Form PTO/SB/08a.

The cited U.S. patents and patent application publications are listed on Form PTO/SB/08a. A copy of the cited foreign patent documents and non-patent literature are enclosed herewith. The Examiner is requested to review each reference and formulate his/her own understanding thereof.

Respectfully submitted

Kevip J. Nilsen

Registration No. 41,510

Phone:

P. O. Box 1967 Midland, MI 48641-1967 KJN/caa

PTO/SB/08A (08-03)

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Substitute for form 1449/RTD TRADELING

Sheet 1

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of 3

Complete if Known					
Application Number	10/551,728				
Filing Date	October 3, 2005				
First Named Inventor	Saha et al.				
Art Unit	1755				
Examiner Name	Not Assigned				
Attorney Docket Number	61804A19				

Examiner Initials*	Cite No.1	Document Number	Publication Date (MM-DD-YYYY)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevan Passages or Relevant Figures Appear
IIIIIais	No.	Number-Kind Code ² (if known)	(
		US-4,293,357	10/1981	Higuchi et al	
		US-4304,585	12/1981	Oda et al.	
		US-4,559,193	12/1985	Ogawa et al.	
		US-4,608,357	08/26/86	Silverman et al.	
	<u> </u>	US-4,628,042	12/09/86	Speronello	
		US-4,893,465	01/16/90	Farrauto ete al.	
		US-5,340,516	08/23/94	Yavuz et al.	
		US-5,437,933	08/01/95	Coupland et al.	
		US-5,504,051	04/02/96	Nakamura	
		US-6,306,335	10/23/01	Wallin et al.	
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Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Senter Office that issued the document, by the two-letter code (WIPO Standard ST.3). Form Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible.

Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449/PTO					Complete if Known
				Application Number	10/551,728
	INFORMATION	ΝI	DISCLOSURE	Filing Date	October 3, 2005
STATEMENT BY APPLICANT		First Names Inventor	Saha et al.		
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Sheet	2	of	3	Attorney Docket Number	61804A19

Examiner Initials*	Cite No. ¹	Document Number Country Code ³ - Number-Kind Code ⁵ (if known)	Publication Date (MM-DD- YYYY)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		JP 63103877		Abstract		╙
		JP 0478447	3/12/1992			<u>l</u> L
		JP 05317727	12/3/1993			
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Substitute for form 1449/PTO Application Number 10/551,728 INFORMATION DISCLOSURE October 3, 2005 Filing Date STATEMENT BY APPLICANT First Named Inventor Saha et al. (Use as many sheets as necessary) Art Unit 1755 Not Assigned **Examiner Name Attorney Docket Number** 61804A19 Sheet 3 13 NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, т6 Examiner Cite Initials* journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. No.1 JAE-EAN LEE et al. Ceramics International, "Effects of precursor pH and sintering temperature on synthesizing and morphology of sol-gel processed mullite" J. R. MOYER et al., J. Am. Ceram. Soc., 77(4)1083-86 (1994) "A Catalytic Process for Mullite Whiskers", pgs. 1083-1085 J. R. MOYER, J. Am. Ceram. Soc., 78(12)3253-58(1995) "Phase Diagram for Mullite-SiF4", pgs. 3253-3258 J. R. MOYEr et al., J. Am. Ceram. Soc., 771 (4), (1994) "Stoichiometry of Fluorotopaz and of Mullite Made from Fluorotopaz" pgs. 1087-1089 HEON-JIN CHOi et al., J. Am. Ceram. Soc., 85(2) 481-83 (2002) "Synthesis of Mullite Whiskers", pgs. 481-483 Examiner Date Signature Considered

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January 23 2006

Carol A. Axtell

PRINT OF TYPE NAME OF PERSONSIGNING CERTIFICATE

SIGNATURE OF PERSON SIGNING CERTIFICATI

DATE OF SIGNATURE

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

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Respectfully submitted

Kevin J. Nilsen

Registration No. 41,510 Rhône: 989-638-6505

P. O. Box 1967

Midland, MI 48641-1967

KJN/caa

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	ute for form 1449/PTO			Complete if Known		
				Application Number	10/551,728	
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Filing Date	October 3, 2005		
			First Named Inventor	Saha et al.		
	(Use as many she	-		Art Unit	Not Assigned	
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Sheet	1 01	f	3	Attorney Docket Number	61804A	

Examiner	Cite	Document Number	Publication Date (MM-DD-YYYY)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
Initials*	No.1	Number-Kind Code ² (# known)	(WINVEDO-TTTT)	Cited Document	assages of Neievani rigures / ppes
017		US-6764742B2	07/20/04	Ichikawa et al.	
	40	US-5145806	09/08/92	Shirakawa et al.	
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JAN & D	4008 V	S4911902	03/27/90	Talmy et al.	
3.		US4948766	08/14/90	Taimy et al.	
THADE		US5098455	03/24/92	Doty et al.	
	, V	US5194154	03/16/93	Moyer et al.	
 -	7	US5198007	03/30/93	Moyer et al.	
	V	US5173349	12/22/92	Yavuz et al.	
·	V	US5252272	10/12/93	Yavuz et al.	
···········		US-5145806	09/08/92	Shirakawa et al.	
		US-5,294,576	03/15/94	Mizushima et al.	
		us- 4293 357			
		US- 4304 5 85			
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rexaminer. Initial if reference considered, whether or not clation is in conformance with MP-PoUs. Draw the involgin clasion is not considered, whether or not clation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.usple.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴Form Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English tanguage Translation is attached. This collection of Information is required by 37 CFR 1.19 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P. O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

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(Use as many sheets as necessary)	Art Unit	Not Assigned
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Sheet 2 of 3	Attorney Docket Number	61804A

			FOREIGN PATE	NT DOCUMENTS		
Examiner Initials*	Cite No. ¹	Document Number Country Code ³ - Number-Kir Code ⁵ (f known)	Publication Date (MM-DD- YYYY)	Name of Patentee or Application of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	т6
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BY APPLICANT	First Named Inventor	Saha et al.	
(Use as many sheets as necessary)	Art Unit	Not Assigned	
	Examiner Name	Not Assigned	
Sheet 3 61804A 3	Attorney Docket Number	61804A	

	NON PATENT LITERATURE DOCUMENTS	
Initials No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	т6
VAN 2 8 7006	THE INSTITUTION OF ELECTRICAL ENGINEERS, STEVENAGE, GB; 200, HYUNHO SHIN ET AL: "Mullitization from a multicomponent oxide system in the temperature range 1200 'deg.l-1500 'deg.lC	
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